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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,480	02/24/2005	George Posthuma	LVIP:118 US	7530

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EXAMINER
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JUNG, UNSU

ART UNIT	PAPER NUMBER
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1641

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/525,480

Applicant(s)

POSTHUMA, GEORGE

Examiner

Unsu Jung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.  
4a) Of the above claim(s) 22-36 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-21 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 24 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/24/05.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Preliminary amendments to the specification and claims filed on February 24, 2005 is acknowledged and entered.
2. Applicants' amendment to claim 1 in the response filed on September 26, 2005 is acknowledged and entered.
3. Claims 1-36 are pending.

### ***Election/Restrictions***

4. Applicant's election with traverse of Group I in the reply filed on September 26, 2005 is acknowledged. The traversal is on the ground(s) that lack of unity is not in compliance with PCT Rule 13.1. Applicant argues that the device of claim 1 was specifically designed for carrying out step (i) of claim 22. Accordingly, Applicants amended claim 1 to recite "an object support comprising recesses for a treatment liquid." This is not found persuasive because the special technical feature in Groups I and II is the support plate for thin-sectioned tissues and the object support comprising recesses for at least one treatment liquid. This element cannot be a special technical feature under PCT Rule 13.2 because the element is shown in the prior art. Angros et al. (WO 01/04634, Published Jan. 18, 2001), which was cited in Office Action filed on September 7, 2005, fails to teach an object support comprising recesses. However,

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Isreeli (U.S. Patent No. 3,350,220, Oct. 31, 1967) teaches a device comprising a support plate for tissues and an object support comprising recesses for a treatment liquid, wherein the support plate is disposed opposite the object support in a treatment position, wherein the device is adapted so that a plurality of the object supports can be automatically placed into the treatment position (Fig.'s 3-7 and column 2, line 5-column 3, line 43). Applicant's amendment necessitated the new ground of lack of unity presented in this Office Action. Therefore, the lack of unity requirement is maintained between Groups I and II.

The requirement is still deemed proper and is therefore made FINAL.

### ***Drawings***

5. The drawings are objected to because of the following reasons:

Fig. 5: the reference number "2" is defined as small metal screens according to the current specification (p7, line 2). However, the reference number "2" located in the bottom left corner of Fig. 5 does not point to any element in the Figure.

Fig. 8: the reference number "13" does not point to the moist filter paper as defined in the current specification (p8, line 17).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be

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canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

6. The use of the trademarks PARAFILM® (p2, line 10), PARLODION® (p2, line 10), FORMFAN® (p2, line 11), and TEFLON® (p5, lines 11 and 32) are noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

### ***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. In claim 1, the phrase "which comprises" is vague and indefinite. It is not clear whether the phrase "which comprises" refers to "treatment liquid" or "device."

10. In claims 5 and 11, the phrase "dimensionally stable material" is vague and indefinite. The specification does not define the phrase and it is not clear what the phrase "dimensionally stable material" means.

11. In claim 10, the phrase "free recesses" is vague and indefinite. The specification does not define the phrase and it is not clear what the phrase "free recesses" means.

12. Claim 11 recites the limitation "the group" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is suggested that Applicant change the phrase "the group" to "a group."

13. The term "about the same as" in claim 13 is a relative term which renders the claim indefinite. The term "about the same as" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one

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of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The parameter "depth of the recesses" has been rendered indefinite by the use of the term "about the same as."

14. Claim 14 recites the limitation "the liquid volume" in line 2. There is insufficient antecedent basis for this limitation in the claim.

15. In claim 18, the phrase "motor providing means" in line 3 is vague and indefinite. It is not clear whether or not the phrase "motor providing means" refers to "motor" in line 2.

### ***Claim Rejections - 35 USC § 102***

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17. Claims 1, 10, 14, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Isreeli (U.S. Patent No. 3,350,220, Oct. 31, 1967).

Isreeli anticipates instant claims by teaching a device comprising a support plate for tissues and an object support comprising recesses for a treatment liquid, wherein the support plate is disposed opposite the object support in a treatment position, wherein

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the device is adapted so that a plurality of the object supports can be automatically placed into the treatment position (Fig.'s 3-7 and column 2, line 5-column 3, line 43).

With respect to claim 10, Isreeli teaches the device of claim 1, wherein the object support comprises an upper side with free recesses adapted for receiving the treatment liquid (Fig.'s 6 and 7).

With respect to claim 14, Isreeli teaches the device of claim 10, wherein the liquid volume of the recesses of the object support is at least 5  $\mu$ L (column 2, lines 5-9 and Fig. 6).

With respect to claim 17, Isreeli teaches the device of claim 10, wherein the recesses for the treatment liquid on the upper side of the object support are arranged opposite the positions of the metal screens on the underside of the support plate (Fig. 3).

With respect to claim 18, Isreeli teaches the device of claim 10, further comprising conveyor means for transmission of the object support, a guiding track and a motor, wherein the guiding track and the motor providing means for establishing the treatment position (column 3, lines 35-37).

### ***Claim Rejections - 35 USC § 103***

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



19. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

20. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isreeli (U.S. Patent No. 3,350,220, Oct. 31, 1967) in view of Blades (U.S. Patent No. 3,63,468, Jan. 16, 1968).

Isreeli teaches a device comprising a support plate for tissues and an object support as discussed above. However, Isreeli fails to teach a device, wherein the object support is comprised of a transparent, dimensionally stable material selected from a group consisting of glass and fiber-reinforced plastic. Isreeli further fails to teach an object support comprising a hydrophobic coating on the upper side containing the recesses.

Blades teaches a liquid sampling device comprising catchment means to be made of any convenient material for example glass (column 2, lines 3-5). If desired, the surfaces of the catchment means may be coated with hydrophobic material innocuous to both liquid and diluent, to reduce adherence of the liquid being sampled to the catchment means (column 2, lines 5-9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include in the device of Isreeli with glass catchment means such as recesses of the object support containing reagents coated with hydrophobic material innocuous to both liquid and diluent as taught by Blades in order to reduce adherence of the liquid being sampled to the catchment means.

21. Claims 15, 16, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isreeli (U.S. Patent No. 3,350,220, Oct. 31, 1967) in view of Tseung et al. (U.S. Patent No. 6,746,851, Filed Jan. 14, 2000) and Rhett et al. (U.S. Patent No. 5,839,091, Nov. 17, 1998).

Isreeli teaches a device comprising a support plate for tissues and an object support as discussed above. However, Isreeli fails to teach a device, wherein the treatment liquid is marking and/or washing solution for carrying out immunological marking techniques for thin sectioned tissues and the object support further comprises a bar code and/or chip for data storage.

Tseung et al. teaches an apparatus for specimen slide preparation using a reagent pack, which includes identifiers such as bar codes (column 4, lines 28-31) that specify a particular slide preparation protocol (Abstract). The invention of Tseung et al. comprises advances in automated slide staining apparatus such as the one disclosed in Rhett et al (column 2, lines 53-58).

Rhett et al. teaches an automatic staining apparatus comprising an electrochemical automatic staining device and a computer system (Abstract) for

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carrying out immunological marking techniques such as immunohistochemistry (column 7, line 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include in the device of Isreeli et al. with the reagent pack, which includes identifiers such as bar codes, as taught by Tseung et al. in order to carry out immunological marking techniques such as immunohistochemistry as taught by Rhett et al.

With respect to claim 20, Tseung et al. teaches a reagent pack (object support) provided with a cover means so as to form a chamber therefor and means for at least partially opening the cover means automatically (column 4, lines 24-34).

22. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Isreeli (U.S. Patent No. 3,350,220, Oct. 31, 1967) in view of Gary (U.S. Patent No. 3,515,254, June 2, 1970).

Isreeli teaches a device comprising a support plate for tissues and an object support as discussed above. However, Isreeli fails to teach a device, further comprising computer means and position sensor means for automatically controlling the conveyor.

Gary teaches a conveyor system comprising computer means and position sensor means for automatically controlling the movement of the conveyor (column 3, lines 21-44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include in the device of Isreeli with computer means and position sensor means of Gary in order to automatically control the movement of the conveyor.

23. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Isreeli (U.S. Patent No. 3,350,220, Oct. 31, 1967) in view of Tseung et al. (U.S. Patent No. 6,746,851, Filed Jan. 14, 2000) and Rhett et al. (U.S. Patent No. 5,839,091, Nov. 17, 1998) as applied to claim 20 above, and further in view of Zavada et al. (U.S. Patent No. 6,051,226, Filed Dec. 30, 1993).

Isreeli in view of Tseung et al. and Rhett et al. teaches a device comprising a support plate for tissues and an object support provided with a cover means so as to form a chamber as discussed above. However, Isreeli in view of Tseung et al. and Rhett et al. fails to teach a device, wherein the chamber further comprises means for holding an absorbent for elevated humidity in the chamber for minimizing evaporation of the treatment liquid on the object supports.

Zavada et al. teaches a humidified chamber prepared by placing an absorbent black cloth moistened with water in a container with a lid (column 41, lines 22-24). The chamber is used to prevent evaporation of reagents (column 41, lines 24-26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include in the device of Isreeli in view of Tseung et al. and Rhett et al. with an absorbent in a container with a lid (chamber) as taught by Zavada et al. in order to prevent evaporation of reagents.

***Allowable Subject Matter***

24. Claims 2-9 and 14 are allowed.

25. The following is a statement of reasons for the indication of allowable subject matter: Isreeli teaches a device comprising a support plate for tissues and an object support as discussed above. However, Isreeli fails to teach a device, wherein the support plate comprises an underside and an upper side, said underside having marked positions and metal screens for mounting said thin-sectioned tissues, said upper side having a plurality of holes with magnets, said holes being disposed opposite the marked positions. Isreeli further fails to teach a device, wherein the depth of the recesses on the upper side of the object support is about the same as the thickness of the hydrophobic coating. Furthermore, prior art does not render the device having limitations recited in claims 2-9 and 13 obvious.

26. Claims 2-9 and 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

27. No claim is allowed.

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28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Unsu Jung whose telephone number is 571-272-8506.

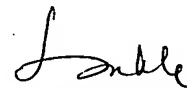
The examiner can normally be reached on M-F: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Unsu Jung, Ph.D.  
Patent Examiner  
Art Unit 1641



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11/11/05